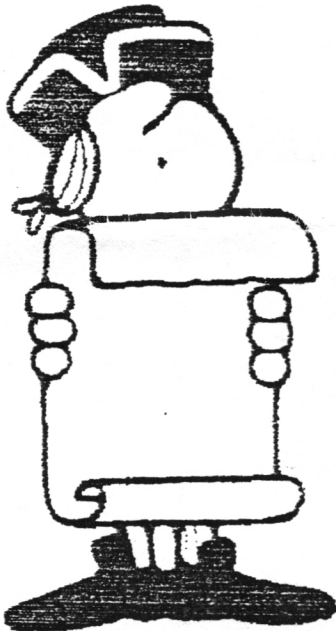


LISTing Newsletter

FEB 1994

Newsletter of the Long Island
Sinclair/Timex Users Group

Next Meeting
February 13



<p>Ten Years Anniversary</p>
<p>Table Of Contents P2...Notes/Meeting Reminder P3...Swap Meet Listings P4...More Swap Information P5...QL Corner by Bob Gilder P6...QL Power Supply P7...News of 2nd QL/QDOS Get together P8...Conversion Tips ZX81/Spectrum P9...More Tips P10.Nostalgic 1st LIST Cover</p>

Listing Policy
Annual Dues \$16.00

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LIST OFFICERS
 ++++++
 PRES. HARVEY RAIT
 V.P. BOB GILDER
 TRES. ROBERT MALLOY
 COR. SEC. JOHN RAZMINO
 EDITOR. FRED STERN
 LIBR. TOM SKAPINSKI
 ++++++

PLEASE SEND INQUIRIES TO:
 LIST
 MR. HARVEY RAIT
 5 PERI LANE
 VALLEY STREAM, N.Y. 11581

PLEASE SEND SUBMISSIONS TO:
 LISTING
 MR. FREDERIC STERN
 P.O. BOX 284
 HOLBROOK, N.Y. 11741

COMING EVENTS:

 FEB. 13, 1994 LIST MEETING.

 SPECIAL NOTICE

THE NEXT MEETING WILL BE HELD AT
 THE ICE CREAM DISPENSARY
 (HARVEYS STORE)
 334 DOGWOOD AVENUE
 FRANKLIN SQUARE, N.Y.
 TEL: 516-486-1090

DIRECTIONS: SOUTHERN STATE PKWY
 TO EXIT 17 NORTH (HEMPSTEAD AVE)
 GO TO FIRST TRAFFIC LIGHT,
 LEFT TURN ON TO CORNWALL,
 NEXT TRAFFIC LIGHT, BEAR RIGHT
 ON TO DOGWOOD AVENUE. GO 1 MILE
 TO THE ICE CREAM DISPENSARY, IN
 A SMALL SHOPPING CENTER ON THE
 LEFT SIDE OF THE ROAD.

MEETING MINUTES

 REPORTED BY: FRED STERN
 JAN. 16, 1993

 THE LIST MEETING WAS RESCHEDULED
 FROM JAN. 09, 1994 TO TODAY
 BECAUSE OF BAD WEATHER.

THE MEETING WAS CALLED TO ORDER
 BY HARVEY AT 2:05PM

IN THE MAIL WE RECEIVED 4
 MEMBERSHIP RENEWALS, AND 2
 REQUESTS FOR INFORMATION.

BOB MALLOY REPORTED THAT LIST
 HAS APPROXIMATELY \$500.00 IN THE
 TREASURY AND WE ARE IN FAIR
 SHAPE.

TECHNICAL ROUNDTABLE

LIST IS YOUR USERS GROUP, SO WHY
 DON'T YOU USE IT? IF YOU HAVE
 ANY TECHNICAL QUESTIONS ABOUT
 TIMEX/SINCLAIR HARDWARE OR SOFT-
 WARE, WHETHER YOU ARE A LIST
 MEMBER OR NOT, CONTACT US AT THE
 ABOVE ADDRESS. WE WILL GET BACK
 TO YOU IF WE CAN HELP YOU OR
 NOT. SELECTED CORRESPONDENCE
 WILL BE PRINTED IN UPCOMING
 ISSUES OF LISTING.

BOB BARNETT SENT A QUESTION;
 HAS ANYONE FIGURED OUT HOW TO
 GET UU-FILE TO PRINT TO A
 (TOSHIBA) PRINTER THROUGH A
 MEMOPAK/CENTRONICS INTERFACE?
 BOB IS USING A T31000 SYSTEM.
 IF YOU CAN HELP, PLEASE CONTACT
 ME (FRED STERN) AT THE ABOVE
 ADDRESS. I WILL FORWARD IT TO
 BOB.

10 YEARS YOUNG LIST 9.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27.28.29.30.31.32.33.34.35.36.37.38.39.40.41.42.43.44.45.46.47.48.49.50.51.52.53.54.55.56.57.58.59.60.61.62.63.64.65.66.67.68.69.70.71.72.73.74.75.76.77.78.79.80.81.82.83.84.85.86.87.88.89.90.91.92.93.94.95.96.97.98.99.100.101.102.103.104.105.106.107.108.109.110.111.112.113.114.115.116.117.118.119.120.121.122.123.124.125.126.127.128.129.130.131.132.133.134.135.136.137.138.139.140.141.142.143.144.145.146.147.148.149.150.151.152.153.154.155.156.157.158.159.160.161.162.163.164.165.166.167.168.169.170.171.172.173.174.175.176.177.178.179.180.181.182.183.184.185.186.187.188.189.190.191.192.193.194.195.196.197.198.199.200.201.202.203.204.205.206.207.208.209.210.211.212.213.214.215.216.217.218.219.220.221.222.223.224.225.226.227.228.229.230.231.232.233.234.235.236.237.238.239.240.241.242.243.244.245.246.247.248.249.250.251.252.253.254.255.256.257.258.259.260.261.262.263.264.265.266.267.268.269.270.271.272.273.274.275.276.277.278.279.280.281.282.283.284.285.286.287.288.289.290.291.292.293.294.295.296.297.298.299.300.301.302.303.304.305.306.307.308.309.310.311.312.313.314.315.316.317.318.319.320.321.322.323.324.325.326.327.328.329.330.331.332.333.334.335.336.337.338.339.340.341.342.343.344.345.346.347.348.349.350.351.352.353.354.355.356.357.358.359.360.361.362.363.364.365.366.367.368.369.370.371.372.373.374.375.376.377.378.379.380.381.382.383.384.385.386.387.388.389.390.391.392.393.394.395.396.397.398.399.400.401.402.403.404.405.406.407.408.409.410.411.412.413.414.415.416.417.418.419.420.421.422.423.424.425.426.427.428.429.430.431.432.433.434.435.436.437.438.439.440.441.442.443.444.445.446.447.448.449.450.451.452.453.454.455.456.457.458.459.460.461.462.463.464.465.466.467.468.469.470.471.472.473.474.475.476.477.478.479.480.481.482.483.484.485.486.487.488.489.490.491.492.493.494.495.496.497.498.499.500.501.502.503.504.505.506.507.508.509.510.511.512.513.514.515.516.517.518.519.520.521.522.523.524.525.526.527.528.529.530.531.532.533.534.535.536.537.538.539.540.541.542.543.544.545.546.547.548.549.550.551.552.553.554.555.556.557.558.559.560.561.562.563.564.565.566.567.568.569.570.571.572.573.574.575.576.577.578.579.580.581.582.583.584.585.586.587.588.589.590.591.592.593.594.595.596.597.598.599.600.601.602.603.604.605.606.607.608.609.610.611.612.613.614.615.616.617.618.619.620.621.622.623.624.625.626.627.628.629.630.631.632.633.634.635.636.637.638.639.640.641.642.643.644.645.646.647.648.649.650.651.652.653.654.655.656.657.658.659.660.661.662.663.664.665.666.667.668.669.670.671.672.673.674.675.676.677.678.679.680.681.682.683.684.685.686.687.688.689.690.691.692.693.694.695.696.697.698.699.700.701.702.703.704.705.706.707.708.709.710.711.712.713.714.715.716.717.718.719.720.721.722.723.724.725.726.727.728.729.730.731.732.733.734.735.736.737.738.739.740.741.742.743.744.745.746.747.748.749.750.751.752.753.754.755.756.757.758.759.760.761.762.763.764.765.766.767.768.769.770.771.772.773.774.775.776.777.778.779.780.781.782.783.784.785.786.787.788.789.790.791.792.793.794.795.796.797.798.799.800.801.802.803.804.805.806.807.808.809.810.811.812.813.814.815.816.817.818.819.820.821.822.823.824.825.826.827.828.829.830.831.832.833.834.835.836.837.838.839.840.841.842.843.844.845.846.847.848.849.850.851.852.853.854.855.856.857.858.859.860.861.862.863.864.865.866.867.868.869.870.871.872.873.874.875.876.877.878.879.880.881.882.883.884.885.886.887.888.889.890.891.892.893.894.895.896.897.898.899.900.901.902.903.904.905.906.907.908.909.910.911.912.913.914.915.916.917.918.919.920.921.922.923.924.925.926.927.928.929.930.931.932.933.934.935.936.937.938.939.940.941.942.943.944.945.946.947.948.949.950.951.952.953.954.955.956.957.958.959.960.961.962.963.964.965.966.967.968.969.970.971.972.973.974.975.976.977.978.979.980.981.982.983.984.985.986.987.988.989.990.991.992.993.994.995.996.997.998.999.1000.1001.1002.1003.1004.1005.1006.1007.1008.1009.1010.1011.1012.1013.1014.1015.1016.1017.1018.1019.1020.1021.1022.1023.1024.1025.1026.1027.1028.1029.1030.1031.1032.1033.1034.1035.1036.1037.1038.1039.1040.1041.1042.1043.1044.1045.1046.1047.1048.1049.1050.1051.1052.1053.1054.1055.1056.1057.1058.1059.1060.1061.1062.1063.1064.1065.1066.1067.1068.1069.1070.1071.1072.1073.1074.1075.1076.1077.1078.1079.1080.1081.1082.1083.1084.1085.1086.1087.1088.1089.1090.1091.1092.1093.1094.1095.1096.1097.1098.1099.1100.1101.1102.1103.1104.1105.1106.1107.1108.1109.1110.1111.1112.1113.1114.1115.1116.1117.1118.1119.1120.1121.1122.1123.1124.1125.1126.1127.1128.1129.1130.1131.1132.1133.1134.1135.1136.1137.1138.1139.1140.1141.1142.1143.1144.1145.1146.1147.1148.1149.1150.1151.1152.1153.1154.1155.1156.1157.1158.1159.1160.1161.1162.1163.1164.1165.1166.1167.1168.1169.1170.1171.1172.1173.1174.1175.1176.1177.1178.1179.1180.1181.1182.1183.1184.1185.1186.1187.1188.1189.1190.1191.1192.1193.1194.1195.1196.1197.1198.1199.1200.1201.1202.1203.1204.1205.1206.1207.1208.1209.1210.1211.1212.1213.1214.1215.1216.1217.1218.1219.1220.1221.1222.1223.1224.1225.1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226.2227.2228.2229.2230.2231.2232.2233.2234.2235.2236.2237.2238.2239.2240.2241.2242.2243.2244.2245.2246.2247.2248.2249.2250.2251.2252.2253.2254.2255.2256.2257.2258.2259.2260.2261.2262.2263.2264.2265.2266.2267.2268.2269.2270.2271.2272.2273.2274.2275.2276.2277.2278.2279.2280.2281.2282.2283.2284.2285.2286.2287.2288.2289.2290.2291.2292.2293.2294.2295.2296.2297.2298.2299.2300.2301.2302.2303.2304.2305.2306.2307.2308.2309.2310.2311.2312.2313.2314.2315.2316.2317.2318.2319.2320.2321.2322.2323.2324.2325.2326.2327.2328.2329.2330.2331.2332.2333.2334.2335.2336.2337.2338.2339.2340.2341.2342.2343.2344.2345.2346.2347.2348.2349.2350.2351.2352.2353.2354.2355.2356.2357.2358.2359.2360.2361.2362.2363.2364.2365.2366.2367.2368.2369.2370.2371.2372.2373.2374.2375.2376.2377.2378.2379.2380.2381.2382.2383.2384.2385.2386.2387.2388.2389.2390.2391.2392.2393.2394.2395.2396.2397.2398.2399.2400.2401.2402.2403.2404.2405.2406.2407.2408.2409.2410.2411.2412.2413.

SWAP MEET LISTING

**** **

LIST

5 PERI LANE
VALLEY STREAM, N.Y. 11581

ZX-81/TS1000 TECHNICAL TIDBITS
TECHNICAL TIDBITS PART II
SAVINGS AND LOAD OF THE TIMEX
COMPUTER.

\$4.00 EACH P/POSTAGE

SPECTRUM PROGRAMS

FALL OF ROME

MASTERFILE - (2 TAPES)

\$1.00 EACH P/POSTAGE

TS2068 PROGRAMS

KEYBOARD TUTORIAL

TURTLE GRAPHICS (NO INSTR.)

HOME ACCT. (NO INSTR.)

CAPITALIZATION

PORTFOLIO MANAGER

STATES AND CAPITALS

PERSONAL HOME FINANCE

MATH WIZARDRY II

CHECKBOOK MANAGER

BUDGETER

SPELLING I

\$1.00 EACH P/POSTAGE

TS1000 PROGRAMS

STOCK MARKET SIMULATION GAME

STATES AND CAPITALS

FROGGER

CHESS

MIXED GAME BAG I

FLIGHT SIMULATOR

SUPER MATH

VU-CALC

\$1.00 EACH P/POSTAGE

HARDWARE

TS1000 - \$10.00

TS1000 W/KEYBOARD - \$25.00

16K RAM PACK - \$5.00

MINDWARE PRINTER - \$20.00

EXPERIMENTERS KEYBOARD - \$2.00

ALL PRICES ARE PLUS POSTAGE.

BULK AND MULTIPLE PURCHASES WILL

BE CONSIDERED.

PRICES ARE NEGOTIABLE.

LETS MAKE A DEAL.

KEN LANG -

I WANT TO PURCHASE OL MIDI

HARDWARE AND SOFTWARE.

CONTACT ME C/O LIST.

ALEX R. SWEITZER

R.D. 1, BOX 207

FAYETTE CITY, PENNA. 15438

I AM LOOKING FOR A FULL SIZE

KEYBOARD FOR THE TS1000.

ALSO EDUCATIONAL SOFTWARE FOR

THE TS1000.

FINALLY, I NEED A REPLACEMENT

ULA CHIP FOR THE TS1000.

ROBERT CURNUTT

10400 TRUXTON ROAD

ADELPHI, MD. 20783

COMPLETE TS1000 IN ORIGINAL BOX,

TS2040 PRINTER IN ORIGINAL BOX,

3 ROLLS PRINTER PAPER,

MINT CONDITION

BOTH FOR \$35.00 P/SHIPPING.

COMPLETE ATARI SYSTEM,

800XL COMPUTER,

PRINTER AND MODEM,

SOFTWARE AND BOOKS,

MINT CONDITION,

\$95.00 P/SHIPPING.

KEITH WORRAL

22 2ND AVENUE NORTH

ST. MATHIEU, CANADA J0L2H0

TS2068 W/SPECTRUM ROM,

HERCO PRINTER INTERFACE,

LARKEN DISK SYSTEM,

LARKEN RAMDISK,

TS2050 MODEM,

TS2068 BOOKS, SOFTWARE, GAMES.

THIS IS A PARTIAL LIST, SEND A

S.A.S.E. FOR THE COMPLETE

LISTING.

MAKE AN OFFER I CAN'T REFUSE.

Zxir

OLive

ALive

Full 1993

News Item

8/30/93

Dundee, Scotland — Timex Corp.

said Sunday it had shut down its factory in

Dundee, Scotland, following one of Britain's

most bitter industrial conflicts of recent years.

The factory made printed circuit boards for

electronic cookers (*microwave ovens*). The

Company predicted the closure two months

ago. On Sunday, a spokesman announced the

factory would not reopen Monday morning.

He added that Timex "deeply regrets ending

its presence in Dundee after 47 years in the

City." The plant, which had lost £10 million

(\$15 millions) over the past six years, was the

scene of sometimes violent demonstrations by

locked out workers angry over cost cutting

efforts.

Inventory of Sinclair Equipment

Quantity	Description
1	13 inch color monitor
2	12 inch black & white TV w/ video conversions
3	2068 Timex-Sinclair color computers
1	2020 Timex-Sinclair computer cassette recorder
2	2040 Timex-Sinclair Thermal printer
1	Alphacom 32 Thermal printer
1	TS 1500 computer complete w/ accys & Timex case
1	ZX - 81 computer
2	cassette interface patch box
2	16K Ram Pack
1	Custom ZX80 Sinclair w/ case and keyboard
1	Legend 1380 Dot matrix printer
1	Smith Corona TPII Daisy wheel printer

Inventory of Sinclair Equipment

Quantity	Description
1	TS 1500 Standard
2	TS 2068 Color Computer
1	Zebra Koala Pad
2	TS 16 K RAM Pack
1	Hunter Non-volatile memory Pack
1	Zebra joystick adapter
1	Q-Save adapter
1	TTX Express Thermal printer
1	Timex QL in original box
1	TS 2068 set up w/ Oliger 5 1/4 Floppy driver and two 5.25 floppy drives & external heavy duty power supply
100's	Programs on tape -- many in their original packages
1	A&J Micro Drive w/ lots of cartridges
1	Memopak 64K RAM Pack
1	Memopak 16K RAM Pack
1	2020 Timex-Sinclair Recorder
	Magazines galore Complete sets of most

Inventory of Sinclair Equipment

Quantity	Description
3	Tape recorder
1	Zebra light Pen
5	2040 Timex-Sinclair printer
1	ZX 81 computer
2	TS 1000 computer
1	TS 1000 in original box w/ 16K Ram pack
1	Memopak Parallel printer interface
1	TS 1000 mounted in large keyboard case
2	large keyboards not mounted or wired
2	300 baud modem
1	cassette recorder patch box w/ meter
1	MicroAce 2k computer
1	TS 1500 w/ external keyboard
1	GE Data Corder cassette recorder
1	Oliger EPROM burner
1	Atari Track ball Controller
1	Zebra Track ball Controller
3	Joy sticks

John N. Cushran

11824 Owen Drive

Clearwater, Florida 34619-1722

813 797 9129



QL CORNER

This is the second installment for the QL Power Supply providing Power Supply Technical Data.

Parts List:

R1 1K5 (1500 ohms), 1/8 W Resistor
R2 5K6 (5600 ohms), 1/8 W Resistor
R3 2K2 (2200 ohms), 1/8 W Resistor
R4 2K2 (2200 ohms), 1/8 W Resistor

VR1 2K2 (2200 ohms), 1/4 W Variable Control

C1 3K3 (3300 Mfd, 16 VDC Electrolytic Capacitor, Radial Lead
C2 3K3 (3300 Mfd, 16 VDC Electrolytic Capacitor, Radial Lead

D1 thru D6 1N5400 3Amp, 50 Volt Rectifier Diode,
ZD1 6.2 Volt, 400 MW Zener Diode BZY8BC, 1N753A

SCR1 C106D, 4Amps, 400 V Silicon Control Rectifier
Q1 BC547, T092 NPN Transistor

All parts are available from MOUSER Electronics USA Tel: (800) 34-MOUSER Request current purchasing manual 576.

MAPLIN Electronics UK Tel: (0702) 552911 The new catalog is on sale now.

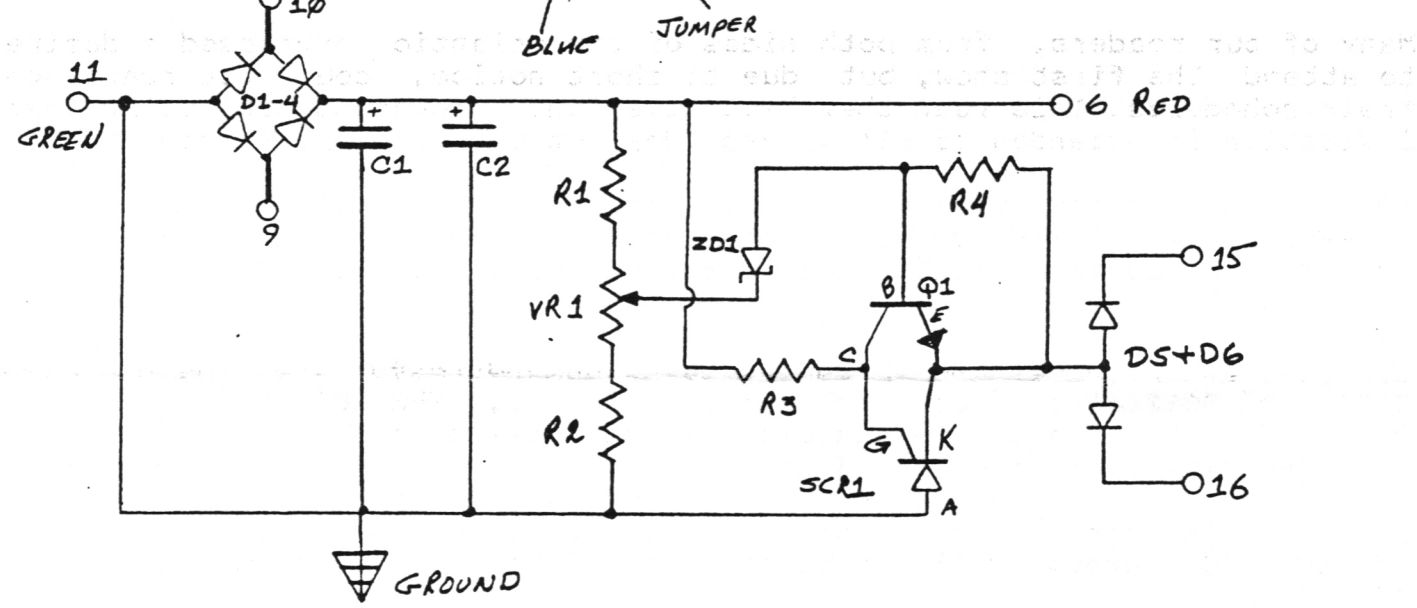
Note: The QL Power Supply Transformer was custom made for Sinclair. There are eight (8) windings, terminating with pins which protrude through the power supply PC board. Transformer windings number 13 and 14 are jumped together. So far I haven't traced the windings for voltage potential, however, I will eventually work on that!

As stated in the December issue of LIST, QL Corner, The only QL problem which I have had with this Power Supply, are defective Rectifier Diodes. A close look at the placement of these defective diodes indicated that they were positioned against the Transformer Laminations which get VERY HOT after several hours of use. I would recommend that if you find your QL locking-up, it may be worth your while to open the Power Supply case and if you find one or more diodes positioned against the transformer windings, bend the offending diode leads outward. This will provide you with extended performance from your Power Supply.

The Power Supply wiring diagram and parts overlay will indicate the Transformer windings as numbers which correspond to the numbers appearing on the transformer. They cannot be seen on the assembled Power Supply; the PC board must be desoldered from the PC board for verification of their associated windings. I have taken apart several of my GOOD Power Supplies and all transformers display the same winding numbers. The reason for this mention, is that several schematics have been published in QUANTA, and each one differs from the other. This is the reason I decided to undertake this project!

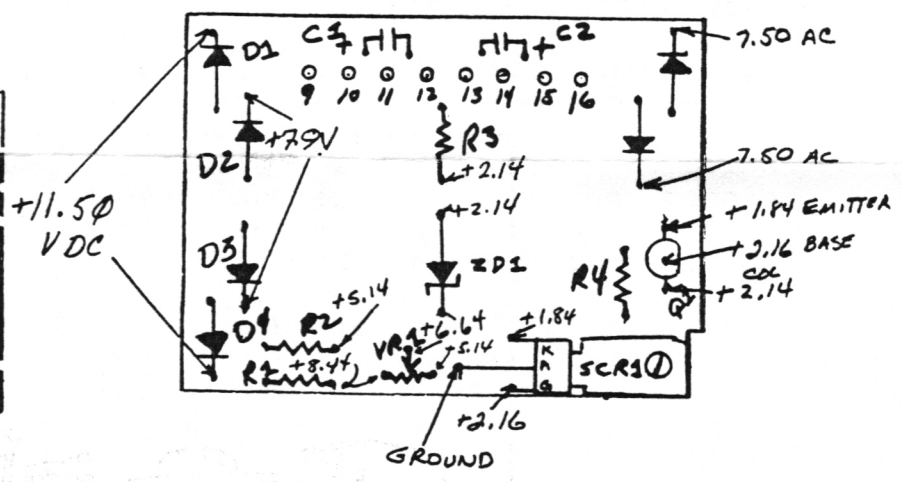
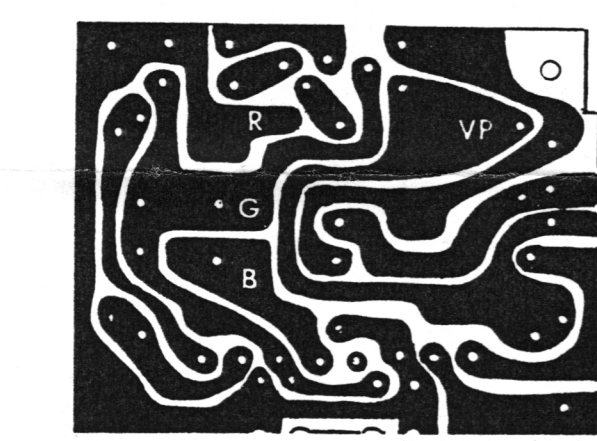
Secondary Transformer Leads

9 10 11 12 13 14 15 16



Printed Circuit Board	Component placement on PC board

Printed Circuit Board Component placement on PC board



Notes: The junction of D2 and D3 is Power Supply Ground.
All voltages were taken unloaded (not connected to QL).
All voltages stated are DC unless otherwise noted.
Voltages as stated +/- .5%, ELENCO Precision DVM.

See you next month.....Bob Gilder

MIRACLE in NEWPORT II

IQLR is sponsoring the second annual North American QL/QDOS get-together on Saturday the 14th of May 1994. The Salvation Army Building on Memorial Boulevard in Newport, Rhode Island will most likely be the center of activities, a large building that can easily hold 200 to 300 people with plenty of space for numerous supplier tables.

Many of our readers, from both sides of the Atlantic expressed a desire to attend the first show, but due to short notice, could not rearrange their schedules. This year they have five months advanced notice. An open invitation is extended to all QL'ers. Why not make your plans now????

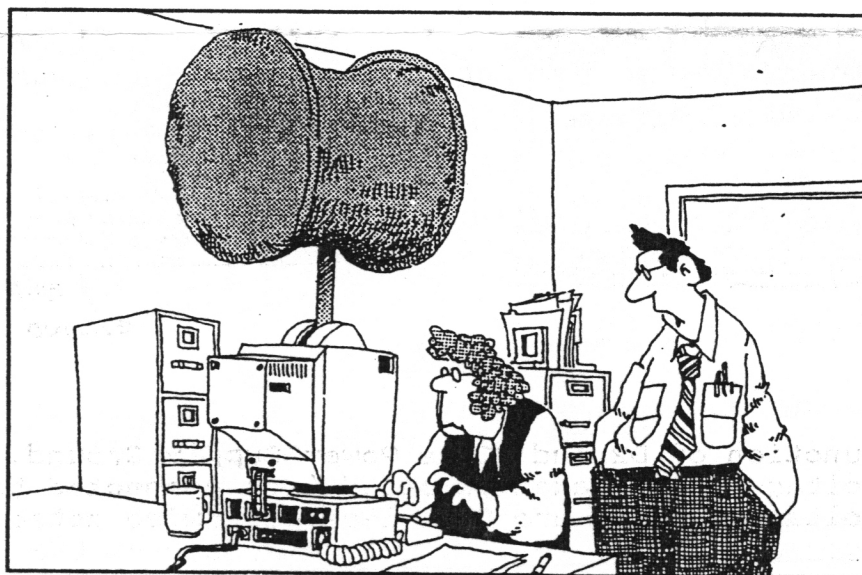
IQLR has already received commitments from Miracle Systems Ltd, Mechanical Affinity, Update Magazine and QBOX-USA, and Dilwyn Jones of Dilwyn Jones Computing has already applied to the BBC for time off to attend the show.

Expected and probably new products to be demonstrated are: THE GRAPHICS CARD and SCSI Interface from Miracle Systems, THE IDE Interface from QUEBBSOFT, The Expanded Quanta Library, and tons of new software from all major suppliers, in addition John Impellizzeri and Don Waltermann will be demonstrating their new bulletin board (QBOX-USA), and will have a 3.5" to 5.25" disk set up to convert PD software at the show, and Bob Gilder of the LIST Group will be demonstrating the CL Systems "REAL TIME DIGITIZER".

The next issue of IQLR should have a complete list of suppliers and demonstrators who will be in attendance, as well as the exact location and time. With so many people responding early, we expect to have a full day show. Accommodations for this time of year are off season, with over 2,000 rooms within five minutes of the show location.

The fee for supplier tables (6 to 8 feet long) will be \$25.00 US each. For QL'ers to register in advance the fee will be \$5.00 US; at the door registration will be \$7.00 US. For additional information call Bob Dyl at 401-849-3805 phone/fax.

I will keep all of our LIST members up to date.....Bob Gilder



"OH YEAH, AND TRY NOT TO ENTER THE WRONG PASSWORD"

Conversion tips

A guide to ZX81/Spectrum program conversions from David Nowotnik.

The versions of BASIC offered by the two ZX computers are so similar that many programs for one can be used by the other. The ZX81 has only two commands which are not present on the Spectrum, SCROLL and UNPLOT, and these should cause you few problems when converting ZX81 programs to the Spec-

trum (see Table 1).

There are quite a lot of commands and functions on the Spectrum which are not available on the ZX81. A list of these appears in Table 4. The stars indicate those commands and functions for which there is no simple translation to ZX81 BASIC. Those for colour and sound can be omitted;

but you will have to find some alternative for the high resolution and file I/O commands.

The command PLOT appears on both computers, but the effect is quite different, so beware! Another tip: PEEK and POKE should be used with caution. In conversion, addresses will almost certainly have to be changed. Some of those

changes appear in the tables. A command such as POKE USR "a" . . . on the Spectrum indicates User Defined Graphics; ZX81 users don't have this facility, so you'll have to omit this and use a standard character instead.

ZX81	Spectrum	Comments
SCROLL	RANDOMISE USR 3582 or LET t=USR 3582	If the program uses random numbers, they could become rather predictable with the first option. If so, use the second, using a variable (in this case t) which is otherwise not used.
PLOT Y,X	PRINT AT 21-Y/2,X/2;	Print the appropriate quarter square graphics character.
UNPLOT Y,X	PRINT AT 21-Y/2,X/2;	Print a space, or the appropriate quarter square graphics character.

Table 1 ZX81 to Spectrum conversions.

Spectrum	ZX81	Comments
BIN eg LET y=BIN 10010101	LET y=(decimal no.) Conversion to decimal: 10010101=149 128 64 32 16 8 4 2 1 Add these numbers together when a 1 appears at the appropriate position in binary.	BIN allows the representation of a number in binary. On the ZX81 use the decimal equivalent, but beware; BIN is often used with User Defined Graphics, which are not available on the ZX81.
READ/DATA eg READ x,y DATA 50,60	LET LET X=50 LET Y=60	READ and DATA are used to store a lot of information in a program. Use LET instead.
DEF FN and FN eg DEF a(x)=SQR x LET t=FN a(i)	LET X\$="SQR X" LET X=1 LET T=VAL X\$	The defined function can appear in a string. Use the keyword for built-in functions (eg SQR). The equivalent of FN may need 2 lines, as shown.
PLOT	no equivalent	
SCREEN\$ eg LET a=SCREEN\$ x,y	LET A=PEEK(PEEK 16396 +256*PEEK 16397+1+Y+33*X)	Used in interactive games to detect characters in the display file. Note — this formula only works when a RAM pack is fitted.

Table 2 Spectrum to ZX81 conversions.

PROGRAMMING TIPS

ZX81

1 FRAMES
POKE 16436,255
POKE 16437,255

LET T = (65535 - PEEK
16436 - 256 * PEEK 16437)
/50

2 Line number zero

POKE 16510,0

3 RAMTOP

POKE 16388,X - 256 * INT CLEAR x
(X/256)
POKE 16389, INT (X/256)

Table 3 General interconversion hints.

Spectrum

POKE 23672,0:POKE 23673,0

LET t = (PEEK 23672 + 256 *
PEEK 23673)/50

For times greater than 10
minutes, you can use byte
23674 as well.

POKE 23756,0

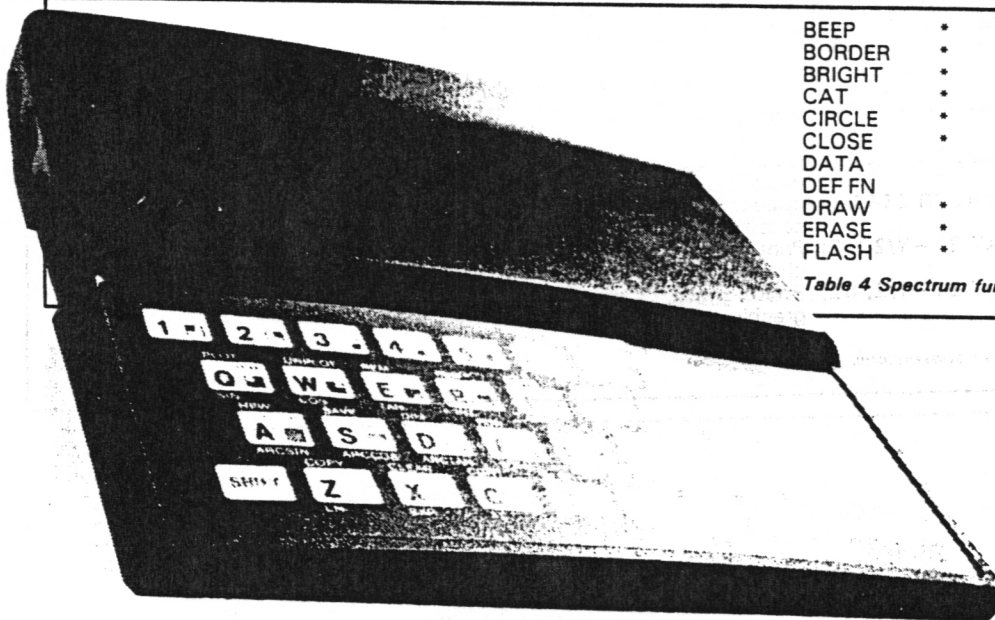
(As the start of BASIC can
move, eg with microdrives)
use with caution.

Comments

Both computers have a counter
which accurately varies by 50
every second. In the example,
use the first line to start the
'clock'. The variable T will
have the time in seconds after
the start. The counter can
only be used for 10 minutes.

Converts the first line of a
program to line number zero.
which cannot be edited, and
so is protected.

Creates a safe area at the
top of RAM starting at address
x, for storing data, machine
code etc.



BEEP	*	FORMAT	*	ATTR	*
BORDER	*	INK	*	BIN	*
BRIGHT	*	INVERSE	*	FN	*
CAT	*	MERGE	*	IN	*
CIRCLE	*	MOVE	*	OVER	*
CLOSE	*	OPEN	*	POINT	*
DATA	*	OUT	*	SCREEN\$	*
DEF FN	*	PAPER	*	VAL\$	*
DRAW	*	READ	*		
ERASE	*	RESTORE	*		
FLASH	*	VERIFY	*		

Table 4 Spectrum functions not available on the ZX81.



System Variables Conversion Table.

Variable	ZX81/ T/S1000	Spectrum/ TS2068	LAST K		
BREG	16414	23655	MARGIN	16424	23560
CDFLAG	16443	No Equivalent	MEM	16415	No Equivalent
CH ADD	16406	23645	MEMBOTT	16477	23656
COORDS	16438	23677	MODE	16390	23698
COORDS (Byte 2)	16439	23678	NXTLIN	16425	23617
DEST	16402	23629	OLDPCC	16427	23637
DF CC	16398	23684	PPC	16391	23662
D FILE	16396	No Equivalent	PRBUFF	16444	23621
DF SZ	16418	23659	PR CC	16440	23296
E LINE	16404	23641	RAMTOP	16388	23680
ERR NR	16384	23610	SEED	16434	23730
E PPC	16294	23625	S PSN	16441	23670
ERR SP	16386	23613	S POSN (Byte 2)	16442	23688
FLAGS	16385	23611	STKBOT	16410	23689
FLAGX	16429	23665	STKEND	16412	23651
FRAMES	16436	23672	S TOP	16419	23653
			STRLEN	16430	23660
			T-ADDR	16432	23666
			VARS	16400	23668
			VERSN	16393	23627
			X PTR	16408	No Equivalent
					23647

LI.S.T. GroupLONG ISLAND
SINCLAIR TIMEX
GROUPTO: *This is the Premier Issue!*LIST
P.O. BOX 438
CENTERPORT, N.Y. 11721-0438

Dear Inquirers:

The LIST GROUP is being formed to help keep the spirit of the Sinclair-Timex "peoples" computer alive. At this point, we're simply getting organized; trying to recruit members, exchanging names, etc. A Charter is yet to be written and "meetings" are mostly by phone or correspondence.

Despite the lack of a written charter, I think the general goals of our group will include:

- 1) Exchange of information, ideas and knowledge on and about TS computers.
- 2) Hardware and Software demonstration and perhaps even exchange.
- 3) Community service to increase computer literacy.
- 4) Perhaps some advantage to members through the exercise of group buying power.

Right now we have few members and a Ø budget. I plan to develop some sort of newsletter, bulked out, perhaps, with some of my product reviews and items from other users groups. To begin with, let's just say an SASE sent to me will keep these newsletters coming to you. In all likelihood, however, we'll probably have to start some sort of 'kitty' to cover such things as phone bills, Xerox costs, space rental (janitorial fees) and a P.O. box. With your next SASE, why not suggest a membership or annual fee and what you think it should be used for. Once we get enough members, or at some arbitrary time when I can arrange it, we'll try to set up a meeting.

If you have been in a user group before or have suggestions on such things as meeting spots, newsletter format, bylaws etc., please help as with your ideas and/or experience.

Hope to hear from you soon,

P.J. Donnelly

Paul D.